Kimball Grasslands

landscape occupies level to rolling hills and breaks of southwest Kimball County. Most level ground is in dry-land crops, primarily wheat. Native mixed-grass prairie still occupies the shallow-soiled breaks bordering

Nebraska Natural Legacy Project

Lodgepole Creek and other stream valleys.

The landscape is unique in that it supports the state's only population of the federally and state listed Colorado butterfly plant, within the Lodgepole Creek valley. The state-listed mountain plover nests in heavily-grazed native grasslands and cropland such as short wheat stubble. Playa wetlands are found on level plains in the northern portion of the BUL.

Stresses Affecting Species and Habitats

- Invasive plant species in native grasslands; the primary species of concern is cheatgrass
- Canada thistle invasion, herbicide spraying, and lowered groundwater levels in meadows where the Colorado butterfly plant occurs
- Tillage in fallow wheat fields that destroys mountain plover nests
- Sedimentation and hydrological alteration of playa wetlands
- Conversion of native prairie to cropland
- Decline in CRP enrollment
- Infrastructure development (e.g., roads, utility-scale wind turbines) in native grasslands

Conservation Strategies

- Work with private landowners whose meadows contain the Colorado butterfly plant to develop and implement forms of Canada thistle control that do not damage populations of the butterfly plant
- Restore and maintain the hydrology of Lodgepole Creek needed to sustain floodplain biodiversity and ecosystem function
- Conduct voluntary nest clearing of wheat fields to prevent damage to mountain plover nests
- Restore selected crop fields and CRP lands to short-grass prairie for mountain plover nesting habitat
- Prevent sedimentation and restore the hydrology of the playa wetlands

- Develop management agreements with landowners to implement grazing and burning strategies on native grasslands that favor mountain plover and native plant diversity
- Re-enrollment of CRP lands
- Work with wind energy companies to select turbine sites that minimize fragmentation and impacts to native species. Avoid placing wind turbines in native prairies. See Nebraska Game and Parks Commission guidelines for wind energy development.

Collaborative Conservation Opportunities across State Borders

Coordinate with Colorado and Wyoming conservation organizations, particularly efforts to benefit shared species of greatest conservation need on the NE Kimball Grasslands/CO Midgrass Prairie and Dry Crop/WY borders (i.e., Weld County in CO and Laramie County in WY). Nebraska Tier I at-risk species identified also in the Colorado Wildlife Action Plan as priority species include the swift fox, ferruginous hawk, McCown's longspur, and mountain plover. Nebraska Tier I species identified also in the Wyoming Wildlife Action Plan include the swift fox, burrowing owl, ferruginous hawk, McCown's longspur, and plains topminnow. Species lists may be updated as new information becomes available. Innovative methods for sufficient information exchange could aid the collaborative process.

Coordinated conservation actions should mirror priorities as identified in Colorado's Comprehensive Wildlife Conservation Strategy and/or conservation actions as identified in the Wyoming State Wildlife Action Plan (e.g., cheatgrass control measures). Collaborative conservation efforts across state borders should include also researchers, federal and non-profit environmental program coordinators, and landowners, particularly those with properties extending over state lines. Continuation and expansion of the Conservation Reserve Program (CRP) is a potential multi-state collaboration that can benefit mountain plovers, as well as other species. Additionally, USDA programs may have goals in common with Natural Legacy. In order to implement other conservation actions beyond state boundaries, it will be necessary to identify and develop staffing and funding sources. Funding that is not specific to any one state will provide more flexibility in project scope.

Tier I At-risk Species

Plants:

Colorado Butterfly Plant¹ Matted Prickly-phlox² Short's Milkvetch¹

Animals:

Swift Fox Burrowing Owl

Ferruginous Hawk Loggerhead Shrike Chestnut-collared Longspur³ Mccown's Longspur³ Mountain Plover¹ Plains Topminnow Cheyenne Northern Pocket Gopher¹ Regal Fritillary Colorado Rita Dotted-blue¹

Aquatic Communities:

Headwater, Warm Water Stream

Terrestrial Communities:

Pine-Juniper Scarp Woodland Sandbar Willow Shrubland Buckbrush Shrubland Chokecherry-Plum Shrub Thicket Freshwater Seep Wheatgrass Playa Grassland Cattail Shallow Marsh Western Sand Prairie Threadleaf Sedge Western Mixed-grass Prairie* Wheatgrass Western Mixed-grass Prairie Western Floodplain Terrace Grassland Perennial Sandbar Sandbar/Mudflat Rock Outcrop*

^{*} Priority for conservation in this BUL

1 This is the only BUL where the species is known to occur

2 Known to occur in only one other BUL

3 Known to occur in only two other BULs

⁴ Known to occur in only three other BULs